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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,113	07/16/2003	J. David Lambeth	05501-0202 (43150-287577)	3341

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EXAMINER	
SAIDHA, TEKCHAND	
ART UNIT	**PAPER NUMBER**
1652	

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,113	LAMBETH ET AL.	
	Examiner	Art Unit	
	Tekchand Saidha	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2004*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-23* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group 1, claim(s) 1-6 & 21 [all in part], drawn to an isolated Nox protein (NADPH-oxidase) of SEQ ID NO: 2, and composition thereof, classified in class 435, subclass 189.

Group 2, claim(s) 1-6 & 21 [all in part], drawn to an isolated Nox protein (NADPH-oxidase) of SEQ ID NO: 4, and composition thereof, classified in class 435, subclass 189.

Group 3, claim(s) 1-6 & 21 [all in part], drawn to an isolated Nox protein (NADPH-oxidase) of SEQ ID NO: 6, and composition thereof, classified in class 435, subclass 189.

Group 4, claim(s) 1-6 & 21 [all in part], drawn to an isolated Nox protein (NADPH-oxidase) of SEQ ID NO: 8, and composition thereof, classified in class 435, subclass 189.

Group 5, claim(s) 7-12 [all in part], drawn to an isolated nucleic acid of SEQ ID NO: 1 encoding the Nox protein, vector & host cells, classified in class 435, subclass 252.3.

Group 6, claim(s) 7-12 [all in part], drawn to an isolated nucleic acid of SEQ ID NO: 3 encoding the Nox protein, vector & host cells, classified in class 435, subclass 252.3.

Group 7, claim(s) 7-12 [all in part], drawn to an isolated nucleic acid of SEQ ID NO: 5 encoding the Nox protein, vector & host cells, classified in class 435, subclass 252.3.

Group 8, claim(s) 7-12 [all in part], drawn to an isolated nucleic acid of SEQ ID NO: 7 encoding the Nox protein, vector & host cells, classified in class 435, subclass 252.3.

Group 9, claim(s) 13 [in part], drawn to antibody to SEQ ID NO: 2, classified in class 530, subclass 387.1.

Group 10, claim(s) 13 [in part], drawn to antibody to SEQ ID NO: 4, classified in class 530, subclass 387.1.

Group 11, claim(s) 13 [in part], drawn to antibody to SEQ ID NO: 6, classified in class 530, subclass 387.1.

Group 12, claim(s) 13 [in part], drawn to antibody to SEQ ID NO: 8, classified in class 530, subclass 387.1.

Group 13, claim(s) 14-15 & 22 [all in part], drawn to use of protein (regulating super-oxide formation) of SEQ ID NO: 2, classified in class 435, subclass 4.

Group 14, claim(s) 14-15 & 22 [all in part], drawn to use of protein (regulating super-oxide formation) of SEQ ID NO: 4, classified in class 435, subclass 4.

Group 15, claim(s) 14-15 & 22 [all in part], drawn to use of protein (regulating super-oxide formation) of SEQ ID NO: 6, classified in class 435, subclass 4.

Group 16, claim(s) 14-15 & 22 [all in part], drawn to use of protein (regulating super-oxide formation) of SEQ ID NO: 8, classified in class 435, subclass 4.

Group 17, claim(s) 16-18 & 23 [all in part], drawn to use of vector (regulating super-oxide formation) comprising SEQ ID NO: 1, classified in class 435, subclass 320.1.

Group 18, claim(s) 16-18 & 23 [all in part], drawn to use of vector (regulating super-oxide formation) comprising SEQ ID NO: 3, classified in class 435, subclass 320.1.

Group 19, claim(s) 16-18 & 23 [all in part], drawn to use of vector (regulating super-oxide formation) comprising SEQ ID NO: 5, classified in class 435, subclass 320.1.

Group 20, claim(s) 16-18 & 23 [all in part], drawn to use of vector (regulating super-oxide formation) comprising SEQ ID NO: 7, classified in class 435, subclass 320.1.

Group 21, claim(s) 19-20 [all in part], drawn to a method of determining the effect of a compound on superoxide production following administration of Nox protein of SEQ ID NO: 2, classified in class 435, subclass 69.2.

Group 22, claim(s) 19-20 [all in part], drawn to a method of determining the effect of a compound on superoxide production following administration of Nox protein of SEQ ID NO: 4, classified in class 435, subclass 69.2.

Group 23, claim(s) 19-20 [all in part], drawn to a method of determining the effect of a compound on superoxide production following administration of Nox protein of SEQ ID NO: 6, classified in class 435, subclass 69.2.

Group 24, claim(s) 19-20 [all in part], drawn to a method of determining the effect of a compound on superoxide production following administration of Nox protein of SEQ ID NO: 8, classified in class 435, subclass 69.2.

2. The inventions are distinct, each from the other because of the following reasons:

Each of the sequences of SEQ ID Nos. 2, 4, 6 & 8 are structural as well as in the level of activity distinct from each other. Each of the sequences of SEQ ID Nos. 1, 3, 5 & 7 are structural distinct from each other and encode a structurally distinct protein. Each of these sequences require independent sequence search from a variety of Non-patent and patent data bases, apart from searching the distinct classes and performing varying word searches. This additional searching would therefore involve undue burden to the Examiner.

Each of the nucleic acids of Inventions 5-8 are related to each of the proteins of Inventions 1-4 by virtue of encoding the respective protein [for example, SEQ ID NO: 1 encodes the protein of SEQ ID NO: 2 and so on]. The DNA molecule has utility for the recombinant production of the protein in a host cell. Although the DNA molecule and protein are related since the DNA encodes the specifically claimed protein, they are distinct inventions because the protein product can be made by another and materially different process, such as by synthetic peptide synthesis or purification from the natural source. Further, the DNA may be used for processes other than the production of the protein, such as nucleic acid hybridization assay.

The proteins of Inventions 1-4 are related to the antibodies of Invention 9-12 by virtue of being the cognate antigen, necessary for the production of antibodies. Although the protein and antibody are related due to the necessary stearic complementarity of the two, they are distinct Inventions because the protein can be used in another and materially different process from the use for the production of the antibody, such as in a pharmaceutical composition in its own right, or to assay or purify the natural ligand of the protein (if the protein is itself a receptor), or in assays for the identification of agonists or antagonists of the receptor protein.

The nucleic acids of Inventions 5-8 and the antibody of Invention 9-12 are related by virtue of the protein that is encoded by the nucleic acid and necessary for the production of the antibody. However, the nucleic acid itself is not necessary for antibody production and both are wholly different compounds having different compositions and functions. Therefore, these Inventions are distinct.

Inventions I-4 and 13-16 or 21-24 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP □ 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in a method of making antibodies.

Inventions 5-8 and 17-20 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP □ 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in a method of making protein recombinantly.

Each of the products of Inventions 9-12 are not used in the method of Invention 13-24. Therefore, each of the Inventions 9-12 are patentably distinct from each of the Inventions 3-24.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Rejoinder

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for

patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tekchand Saidha whose telephone number is (571) 272 0940. The examiner can normally be reached on 8.30 am - 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (571) 272 0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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